

**From:** Michael Rozengurt [<mailto:rozengurt@earthlink.net>]  
**Sent:** Saturday, March 31, 2012 11:04 PM  
**To:** [Aif.Brandt@asm.ca.gov](mailto:Aif.Brandt@asm.ca.gov); [lwinitemitz@tnv.org](mailto:lwinitemitz@tnv.org); Norgaard, Richard@DeltaCouncil; Vinton, Joanne@DeltaCouncil  
**Subject:** Some remarks on Delta\_Council\_Media] Press Release - Delta Conservancy Strategic

**From:** [delta\\_council\\_media-bounces@lists.ceres.ca.gov](mailto:delta_council_media-bounces@lists.ceres.ca.gov) [[mailto:delta\\_council\\_media-bounces@lists.ceres.ca.gov](mailto:delta_council_media-bounces@lists.ceres.ca.gov)] **On Behalf Of** Alvarez, Eric@DeltaCouncil  
**Sent:** Wednesday, March 28, 2012 1:42 PM  
**To:** 'delta\_council\_media@lists.ceres.ca.gov'  
**Subject:** [Delta\_Council\_Media] Press Release - Delta Conservancy Strategic Plan Public Meetings

Good Day,

Please find attached a press release from the Delta Conservancy. For further information, please contact **Susan Roberts** at **(916) 375-2088**.

Thank you!

# News Release

**FOR IMMEDIATE RELEASE CONTACT: Susan Roberts**

March 26, 2012 (916) 375-2088

## **Delta Conservancy Seeks Local Feedback on Strategic Plan**

**WEST SACRAMENTO** – The Sacramento-San Joaquin Delta Conservancy released today an 80-page draft Strategic Plan that defines the roles it will play in meeting its co-equal responsibilities of ecosystem restoration

Dear Colleagues

*Sorry, but Delta's Restoration under conditions of water starvation of recent past and present (the Delta's water losses for the last three decades account about several hundred millions acre – feet, plus of millions of pounds organic and inorganic matters, and else) is a wishful thinking.*

*I dare to think that Restoration sounds a bit funny, for this promise, unfortunately, entirely contradict the postulate of the Universal Laws of Thermodynamics. Besides, it negate the obvious fact that right now the Entropy has been reigning over the impoverished Sacramento – San Joaquin Delta; thus its body has been stopped functioning as Heart of Rivers. For its has been deprived necessary amount of water and else ( or figural –lifeblood).*

*Consequently, any dream of getting something from nothing would be equal to tend to Redactio ad Absurdum.*

*Michael Rozengurt , P.H., Ph.D.*

and economic development in the Delta. The Conservancy seeks public comment on its plan. “We’ve met with a lot of people in the Delta to get their input into this draft,” said Campbell Ingram, executive officer of the Delta Conservancy. “What we would like from the Delta community at this time is a review of our document to make sure we got it right. Did we accurately characterize their input in our roles and potential efforts?”

The public will have several opportunities to make comments by attending the Conservancy’s monthly Strategic Plan and Policy Subcommittee meeting, on Monday, April 9, 3-5pm, or any of the three work sessions scheduled for early April. The schedule for the work sessions is: • Rio Vista City Council Chambers, 5:30-7:30 p.m., on Tuesday, April 10 • Clarksburg Community Church, 3:30-5:30 p.m., on Thursday, April 12; • Oakley City Council Chamber, 10 a.m. -12 noon, on Saturday, April 14. Comments on the draft Strategic Plan are due April 20, 2012. The draft Strategic Plan is available on the Conservancy’s website at [www.deltaconservancy.ca.gov](http://www.deltaconservancy.ca.gov) and will be available in Delta public libraries. In addition to taking comments at the work sessions, comments may be submitted in writing via email at [comments@deltaconservancy.ca.gov](mailto:comments@deltaconservancy.ca.gov) or sent to the Conservancy headquarters at 3500 Industrial Blvd., second floor, West Sacramento, CA 95691. The Delta Conservancy is a partner for balanced ecosystem restoration and economic development in the Delta.

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SACRAMENTO-SAN JOAQUIN

**DELTA** CONSERVANCY

*A California State Agency*

3500 Industrial Boulevard

Sacramento, CA 95691

Phone 916.375.2084

[www.deltaconservancy.ca.gov](http://www.deltaconservancy.ca.gov)

# News Release

**FOR IMMEDIATE RELEASE**

March 26, 2012

**CONTACT: Susan Roberts**

(916) 375-2088

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The Delta Conservancy is a partner for balanced ecosystem restoration and economic development in the Delta.

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**From:** Michael Rozengurt [<mailto:rozengurt@earthlink.net>]  
**Sent:** Saturday, March 31, 2012 3:14 PM  
**To:** Vinton, Joanne@DeltaCouncil; [caroleekrieger@cox.net](mailto:caroleekrieger@cox.net); [deltakeep@aol.com](mailto:deltakeep@aol.com)  
**Subject:** FW: Report "the Role of Water Diversions in the Decline of Fisheries of the Delta-San Francisco Bay..."

Voice of the forgotten past!

**From:** Michael Rozengurt [<mailto:rozengurt@earthlink.net>]  
**Sent:** Thursday, March 15, 2012 8:37 PM  
**To:**  
**Subject:** Report "the Role of Water Diversions in the Decline of Fisheries of the Delta-San Francisco Bay"...

## San Francisco State University News Bureau

1600 Holloway Avenue • San Francisco 94132 • 415/338-1665. New Adm. 467

Contact: Rol Risska

November 19, 1987

FOR IMMEDIATE RELEASE *"the Role of Water Diversions in the Decline of Fisheries of the Delta-San Francisco Bay and other Estuaries,"*

Excessive water withdrawals during the past decade have significantly Seasonal and annual river and delta discharges into San Francisco Bay. That led to decline in catch of striped bass, salmon and steelhead trout between 1965-86. Economic losses had accounted for this period about \$2.6 billion. Note that the water withdrawals-coupled with very low natural flows during extreme drought in years such as 1976-77-have contributed greatly to the serious deterioration of the Delta's resources--especially its fish life.

*"the Role of Water Diversions in the Decline of Fisheries of the Delta-San Francisco Bay and other Estuaries,"* a technical report based on the previous work of San Francisco State scientists Michael Rozengurt, Michael Herz and Sergio Feld at the University's Paul F. Romberg Tiburon Center for Environmental Studies, regarding flows variability.

This report will be the basis for testimony to be given during the freshwater inflow portion of the State Water Control Board Bay-Delta Water Rights Hearings, beginning Nov. 23 and continuing through Dec. 01 at the Contra Costa Water District Offices in Concord. Note the both reports were distributed by the Center among many entities involved in Hearing, according the Board requirements.

Rozengurt and Herz will testify their work, that analyzed the modification of freshwater inflow to the Delta and Bay which has occurred since the completion of the Central Valley and State Water Projects.

Their testimony will provide statistically validated comparison between annual and seasonal commercial and recreational catches of salmon, striped bass and shad, primarily during the pre-project period, with flows several years earlier.

A key praise of the research is that quantity and physical and chemical characteristic of river flow have substantial impact on living resources during the first seasons of organisms' life. *Results of the study reveal very high correlations*

*between catch and annual and especially spring flows during the previous three to five years, and indicate the quantities of flow, required to support optimal fish catches.*

*Note that despite the more than two billions spent over the past 25 years on the evaluation and managing of the Delta-San Francisco Bay ecosystem, the basic understanding necessary to preserve its health has not been achieved, the report states.* Without a clear picture of the major factors that influence the Delta and Bay living resources and water quality, managerial decisions have not been able to reverse the decline of resources. \_  
-more

**From:** Michael Rozengurt [<mailto:rozengurt@earthlink.net>]

**Sent:** Wednesday, March 21, 2012 12:24 AM

**To:** [secretary@resources.ca.gov](mailto:secretary@resources.ca.gov)

**Cc:** Vinton, Joanne@DeltaCouncil; [mroos@water.ca.gov](mailto:mroos@water.ca.gov); [suzanne.bolton@noaa.gov](mailto:suzanne.bolton@noaa.gov); [jschubel@ibaop.org](mailto:jschubel@ibaop.org); [bzgorbis@msn.com](mailto:bzgorbis@msn.com)

**Subject:** accumulated problems

Attention to: Secretary of Resources Agencies of California

Dear Secretary,

*I send for your deliberation two letters: First (scans 3,4,5) – to Governor J. Brown {1980} - a prognosis of a bleak future of Delta and else, due to a catastrophic water development;*

*Second letter ( scans 1,2) to recent Governor A. Schwarzenegger (2011) - in which the terrible dreams of 1980 have come true. Any your remarks will be greatly appreciated.*

Cordially,

Michael Rozengurt,

P.H., Ph.D. (Hydrology and Oceanography)



***About Peripheral Canal and else.***

On June 20, 1980, Irwin Haydock (Ph.D. biology) and I (Michael Rozengurt, Ph.D., P.H. in the fields of oceanography and hydrology) sent a letter to California's then Governor Jerry Brown and subsequently spread it among numerous others State officials as well as scientists of different entities (see, e.g. [http://deltavision.ca.gov/docs/9 Comment from Irwin Haydock 11-30-07.pdf](http://deltavision.ca.gov/docs/9%20Comment%20from%20Irwin%20Haydock%2011-30-07.pdf)).

This two page letter was based on almost 50 years combined experience and backed by many publications of Dr. Rozengurt as a principal investigator in the former U.S.S.R., concerning the effect of man's activities on environment of River – Delta – Estuary – Coastal sea ecosystems (over 80 publications, including several monographs – some available in the Library of Congress).

Note that a part of the above references were translated in 1981 by California's Dept. Water Resources and some fundamental conclusions were republished in English in "*Water, Water Everywhere But Just so Much to Drink*" in "*Oceans*" Magazine, September 1981 (an Editor and Publisher of this journal at that time was a grandson of President Roosevelt).

Note that in the above-mentioned letter, the following warnings were given to result if, with the help of a Peripheral Canal, there were increasing water withdrawals from Delta for transport to the South, which was the subject of discussion in the press of 1980 almost every day. In short, at that time we wrote to Governor:

1. That accumulative reduction of runoff, especially in spring, of 30% or more percent of **Normal**, i.e. (the average over 55-60 years in concert with international method of hydrological statistic and **UNESCO** methodical regulation), will lead to negative, in term of quality, transformation in regime characteristics of Delta - S.F. Bay.
2. Note that this process corresponds to Universal Laws of Thermodynamics and their derivative characteristic: **Entropy**. This is a sign of gradual, prospective demise of **Delta – San Francisco Bay** ecosystem, provoked by intensive, i.e. more then the natural limit in water withdrawals — **approximately 30%!**
3. Further depletion, along with spring and annual runoff will exacerbate degradation of physical and chemical features of habitat of **Lower River – Delta – San Francisco Bay** ecosystem within a decade;
4. Note that accompanying cumulative losses of sediment load, and gradual increases in salt intrusion and, therefore, led to salinization of deltaic water that will intensify **light penetration, eutrophication, decrease and dissolved oxygen**, and dangerously chip away at levee foundations.
5. Note that all of these and other factors will result in marked depletion of biological productivity and massive collapse of landings fish and shellfish.

In practice, numerous large rivers have demonstrated that if **water diversion exceed statistically validated limit, then runoff deprivation will gradually trigger the following mortal blow for the river - delta ecosystem interconnection features, namely: no water, no habitat, no fish or other resources.**

Unfortunately, some in the environmentally naive political establishment of the past fully ignored this letter as well as the results cited in local and international publications (publications of 1920-1980, and later, and two book-length reports from CSUSF's Tiburon Center for Environmental Studies, 1987, 1988).

Despite the facts that I emphasized that a "Peripheral Canal" was built in the *Volga Delta* in 1974 (for the same purpose as discussed in California's case), with a \$4 billion dollar price tag (**M. Rozengurt and J Hedgpeth, 1989, Revs. Aquatic Science, 1 (2): 337-362**). Its operation in the *Volga Delta* has resulted in a mortal blow for both habitat and fishery resources of the Delta-North Caspian ecosystem.

Note that the late **Randall L. Brown, DWR biologist** from DWR's Kennedy administration, was sent to Russia in 1991 to meet some Delta Volga Administration to check my statements and writings about the environmental disaster - Volga Divider, or Peripheral Canal.

have claimed that it is possible to restore historical habitats of impounded River - Delta - San Francisco Bay ecosystem have to be considered as **reduction ad absurdum**.

**Recommendation:**

*I dare to state that only a nuclear powered desalination plant (like operated in city of **Shevchenko, Mangyshlak Peninsula, Caspian sea, or other areas**) built in the Bay area can save the Delta from fresh water starvation and agonizing demise - for it can produce hundreds of thousands of cubic meters (or millions of acre-feet) of fresh water that can be used to recharge water conveyance systems as drought conditions occur and concern over water availability increases.*

*Note that today there are over 7,500 **desalination** plants in operation worldwide.*

Cordially,

**M. Rozengurt, Ph.D., P.H.**

(1045 N. Kings Rd., #207, West Hollywood, CA 90069)



June 20, 1980

Honorable Governor  
Jerry Brown  
Sacramento  
California

This letter is being written to appraise you of certain facts which must be considered in your deliberations on the Peripheral canal issue currently before the California legislature and being discussed almost daily in the news. This issue has not only statewide, but national significance, as an example of large scale water development for which important ecological, economical, and social effects have already been demonstrated in similar programs of other nations.

The following facts are apparent to us, as professionals examining the demise of the San Francisco Bay Delta; some of these derive directly from observing the corpses of other similar ecosystems abroad:

1. There should be no further water projects' constriction, including the Peripheral canal, until such time as new cost-benefit analyses have been done and predictions are made as to the relation between Delta outflow and (a) salt intrusion in San Francisco Bay, (b) pollution and waste treatment needs and (c) productivity of the entire system.
2. There should be no further water withdrawals from the existing Delta pool as history both here and abroad has shown severe economic and environmental damage results from greater than 30 % reductions in the natural flow.

The lack of data to understand this system and to make adequate Predictions is appalling and must be corrected immediately by a major research effort.

This must lead to a proper monitoring program to prevent future problems. The cost of these programs is estimated as at least \$2 million per year, but this is minuscule compared to the \$11 billion expenditure contemplated for replumbing the system to meet only man's perceived needs.

3. The primary question which must be answered prior to any further water development (or replumbing) is the following "What is the natural limit water withdrawals from the Sacramento River and its Delta?"

The experience of foreign countries is frightening: diversion of no more than 30 to 50 % of the normal natural runoff (computed as averaged for 55 years) has led to serious immediate consequences and subsequent, successive degradation of resources, including finally the destruction of the diverted water supply itself due to salt intrusion from an adjacent estuary and sea. Note that these results did not occur all at once, but developed slowly at first and more rapidly toward the end.

This result could be predicted at the outset, for its is quite evident now in well documented case histories. The total time span involved in the above events was measured in years, not decades or centuries, from the point of withdrawals beyond 30% of the natural, spring outflow. This leads us to predict that "25-30 % is nature's limit!" We note with alarm that withdrawals from the River-Delta currently exceed 50%, with eventual projections scheduled for 75% or more of the normal, natural flows.

We predict that the system will collapse long before this point is



reached, although we would not be pleased to see this prediction come true. More to the point, we feel that there is an immediate need to protect the Delta from the already observed salinity intrusions resulting from excessive water development. Dams and the Peripheral Canal cannot correct maintaining of a positive balance of brackish and fresh water exchange necessary to sustain natural estuarine conditions, created by Nature. Other solutions exist and should be examined for their applicability to this important problem.

The Peripheral canal, by itself, cannot flush this system and cannot prevent the salt intrusion water already occurring with alarming frequency. Such a canal will destroy even more of the natural circulation and exacerbate chemical and biological deltaic environment. This is directly opposite to nature's way of enriching the system with a meandering flow and its natural reversals (due to tides and winds, not pumping activities).

A similar, to proposed one, the Peripheral Canal was built on the eastern part of Volga Delta in 1974 to restore the low river- delta tributaries. Here anadromous (beluga, sevruga, sturgeon) and semi-anadromous fish (herring, shad, others) migrate to spawn, and feed. But the Canal nearly stop these activities. And due to excessive upstream and downstream water development, the fishery had declined precipitously.

We would point out that the Delta is not plumbing water distribution system. Historically, any delta is the heart of a rich productive river ecosystem. It receives nutrients from upstream; produces, processes and circulates its own additional nutrients within its fresh and brackish water body; and subsequently affects the rich productivity of the estuary ( bay ) and even the coastal sea. Any change in the course of this vital bloodstream or in the quality of its fluids will lead to change, much of which has already been shown to be detrimental to societal and economic as well as ecological systems.

My colleague and I represent almost 50 years of working experience in marine and estuarine biology, hydrology, and oceanography. This experience is directly pertinent to the problems faced today by the Delta - San Francisco Bay system. Our collective experience leads us to state that, without doubt a final result of further water developments will lead to economic, societal, and ecological ruin for the Delta - Bay for the predominant residual runoff to the San Francisco Bay corresponds to years of subnormal wetness or drought.

Published results regarding similar water development abroad (the Rivers Don and Kuban, the Volga and Terek, the Dnieper and Dniester, and the Nile and Po, which enter the Azov, Caspian, Black, and Mediterranean Seas, respectively) all point to the inescapable conclusion that no more than 25-30 % of the natural Flow can be diverted without disastrous consequences. The historical, average Annual Delta outflow tributary to northern San Francisco Bay was 28.5 MAF (1871-1929) and is presently about 14 MAF, a 50% reduction.

A similar runoff decline had occurred in 1923-24 and led to very serious effects even prior to major water developments. This natural lesson should be kept in mind when discussing eventual Projections of 75% water withdrawals from the Sacramento River in 1990.

The early warning signs of this excessive withdrawal are apparent in the

reduced productivity of fish and wildlife resources, increased salinity intrusion affecting municipal and agricultural water supplies, increased effects of pollution loads in progressively more stagnant waters, and both subtle and gross changes in the delta system's configuration and flow pattern.

These impacts are all the same in kind (not yet in degree) as have been thoroughly documented elsewhere. As such, equal or greater disruption to the ecology and basic economy of this system can be expected in the future. Taken together, these findings adequately demonstrate that the costs of eventual losses, where they are fully known or be projected, far exceed any short-term benefits gained.

More importantly, it has also been demonstrated that many engineering works designed specifically to mitigate prior environmental disruption only exacerbated the problem and accelerated the eventual outcome. Detailed reports have been published over the past decade which have addressed the problems of water resources development leading to the subsequent destruction of the resource itself.

We are scientists and cannot advise you on the difficult political realities of this general problem. Nor can we understand the approach of some engineers:

"first must build and answer questions later." "Final answers to many of our most perplexing questions must be derived from the construction and operation." This quote was attributed to former Director Harvey Banks in the fifties (New West Magazine, June 16, 1980). We do know that if one follows nature's example, and answers the questions the same manner that nature has, then the result will be safe for both the environment and man.

Yours very truly,

Irwin Haydock, Ph.D. ( Marine Ecology)  
Michael Rozengurt, Ph.D., P.E. (Oceanography, Hydrology)  
(Original includes Bibliography of relevant publications)